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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/505,473

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EXAMINER

EIDE, HEIDI MARIE

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

06/11/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/505,473	Applicant(s) HAHN ET AL.	
	Examiner HEIDI M. EIDE	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the details of figure 2 are not clearly illustrated. The details needed to understand the workings of the instrument are illustrated in figure 2, however are very small which makes it hard to see every claimed limitation. The scale to which a drawing is made must be large enough to show the mechanism without crowding when the drawing is reduced in size to two-thirds in reproduction (see MPEP 608.02 37 CFR 1.84 (5) (k)). Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 8 recites the limitation "the outlet" in line 4. There is insufficient antecedent basis for this limitation in the claim.

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4. Claim 9 recites the limitation "the inlet" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Ellion et al. 6,030,215 (Ellion). Ellion discloses a dental therapeutic instrument for rinsing dental tissue with a therapeutic liquid, the dental instrument comprising a storage container 71 for the therapeutic liquid, a cannula 22 for introducing the therapeutic liquid onto the tissue, a pump which supplies the therapeutic liquid to the cannula from the storage container and a pump which withdraws therapeutic liquid by suction via the cannula (col. 7, ll. 15-38) wherein the storage container, the cannula and the pumps are combined into a handpiece type unit as illustrated in fig. 7. Ellion further teaches the pump that supplies the therapeutic liquid to the cannula and the pump that aspirates the therapeutic liquid via the cannula are implemented by a single pump 64, the working direction of which is reversible and wherein the single pump comprises a double acting, linearly mobile piston 44 which with one end region border a first working space (see lower portion of fig. 6b) and the opposite end region border a second working space 51/48 which communicates with the cannula, the first working space communicating with the second working space via a flow path in which a check valve 42

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is situated which permits a flow of the therapeutic liquid only from the first working space into the second working space. Ellion teaches the invention as discussed above, however does not specifically teach the first working space is connected to the reservoir via a check valve. Ellion teaches, as illustrated in fig. 2, a check valve 18 located between the reservoir and a working space. It would have been obvious to one having ordinary skill in the art to modify the embodiment of fig. 7 of Ellion with embodiment of fig. 1 in order to prevent the fluid from the working space being forced back into the reservoir (col. 3, ll. 43-45). Ellion further teaches regarding claim 4, the flow path leading from the first working space to the second working space is a bore which is directed axially through the piston 44 as illustrated in figs. 6a-6b. As to claim 5, Ellion teaches, as illustrated in fig. 6a, the cross-section of the end region of the piston 44 adjoining the first working space is smaller than the cross-section of the end region of the piston 44 adjoining the second working space 51/48.

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) as applied to claim 1 above, and further in view of Hahn 6,997,883. Ellion does not specifically teach the instrument further comprising a control valve provided which in a first position connects the working space to the cannula via a flow path that is capable of being flowed through in both directions and in a second position connected the working space to the cannula and to a further flow path leading to the reservoir via a flow path that is capable of being flowed through only in the direction towards the cannula, a check valve which permits a flow in the direction toward

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the working spaces is situated in the further flow path and wherein the control valve comprises a slide which is capable of being displaced linearly in a bore (col. 17, ll. 24-31). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Hahn to help ensure the fluid taken from the mouth does not return to the reservoir.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) as applied to claim 3 above, and further in view of Frey et al. 5,295,829 (Frey). Ellion teaches the double acting piston 44 is driven by an actuating piston 41. Ellion does not specifically teach the actuating piston is acted upon on one side by a compression spring and on the opposite side adjoins a pressure chamber which communicates with an outlet of a compressed air pulse generator and the inlet of the air generator is capable of being connected to a compressed air supply cable for conventional dental handpieces via a standard coupling. Frey teaches an actuating piston 30 is acted upon on one side by a compression spring 39 and on the opposite side adjoins a pressure chamber 80 that communicates with an outlet of a compressed air generator 37 that is capable of being connected to a compressed air supply cable for conventional dental handpieces via a standard coupling. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Frey in order to reduce the manual labor required to operate the device.

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7. Claims 10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) as applied to claims 1 above, and further in view of Donohue et al. 4,617,918 (Donohue). Ellion teaches the invention as discussed above, however, does not teach the reservoir is a detachably fitted syringe which exhibits a smooth running syringe piston and wherein the syringe is disposable and has no piston rod. Donohue teaches the reservoir is a detachable fitted syringe, as illustrated in fig. 1, which is capable of exhibiting a smooth running syringe piston that has no piston rod and is capable of being disposable. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Donohue in order to easily refill the reservoir.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellion et al. 6,030,215 (Ellion) in view of Donohue et al. 4,617,918 (Donohue) as applied to claim 10 above, and further in view of Baum et al. 5,252,064 (Baum). Ellion in view of Donohue teaches the invention as discussed above, however, does not specifically teach the syringe is a re-usable syringe consisting of autoclavable material. Baum teaches a re-usable syringe consisting of an autoclavable material (col. 4, ll. 32-36). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Ellion in view of Donohue further in view of Baum in order to reduce waste.

Response to Arguments

Applicant's arguments filed March 30, 2009 have been fully considered but they are not persuasive. Applicant argues that Ellion does not teach the delivery and withdraw of the liquid through the same cannula; however, as illustrated in fig. 1, Ellion only teaches one cannula and the liquid being delivered and withdrawn through the same cannula. As illustrated in fig. 8b, the cannula comprises several passageways that deliver and remove the liquid, but the passageways are in the same cannula. Regarding applicant's arguments directed towards Donohue does not teach the deliver and withdrawal functions, that Baum does not teach withdraw of liquid and that Hahn does not teach a single double acting pump integrated into a common handpiece, however these references are not used to teach the limitations the applicant is arguing therefore the applicant's arguments are moot.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Eide
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
Art Unit 3732

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Examiner, Art Unit 3732

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